

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES
Ex parte DePue
Appeal No. _____

Serial No.: 10/708,312
Filed: February 24, 2004
Art Unit: 1732
Examiner: Lawrence Emile Lambelet
Applicant: Todd L. DePue
Title: TWO SHOT CO-INJECTED AUTOMOTIVE INTERIOR
TRIM ASSEMBLY AND METHOD
Attorney Docket: MASLIAC-29
Confirmation No.: 2311

August 27, 2007

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Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

BRIEF ON APPEAL

This brief is in furtherance of Appellant's Notice of Appeal filed June 25, 2007, appealing the decision of the Examiner dated March 23, 2007, finally rejecting claims 5 and 7-9 (claims 1-4 were withdrawn in view of a Restriction Requirement), and responds to the Notice of Panel Decision from Pre-Appeal Brief Review dated July 26, 2007. A copy of the claims appears in the Claims Appendix to this brief.

Table of Contents

I.	Real Party In Interest.....	3
II.	Related Appeals and Interferences	3
III.	Status of Claims	3
IV.	Status of Amendments.....	3
V.	Summary of Claimed Subject Matter	4
VI.	Grounds of Rejection to Be Reviewed on Appeal	4
VII.	Argument	5
	A. The Rejection of Claim 5 under 35 U.S.C. §103(a).....	5
	B. The Rejections of Claims 5 and 7-9 under 35 U.S.C. §103(a)	7
VIII.	Claims Appendix	9
IX.	Evidence Appendix	11
X.	Related Proceedings Appendix.....	12

I. Real Party in Interest

The real party in interest is International Automotive Components Group North America, Inc., of Dearborn, Michigan, which is the assignee of the present invention.

II. Related Appeals and Interferences

There are no related appeals or interferences known to the Appellant or the Appellant's legal representative which will directly affect, or be directly affected by, or have a bearing on the decision of the Board in the present appeal.

III. Status of Claims

Claims 1-5 and 7-9 remain pending in the application. Claims 5 and 7-9 stand rejected after the final rejection mailed March 23, 2007, and are subject to this appeal. Claims 1-4 were withdrawn from consideration as non-elected claims.

Claim 5 stands rejected under 35 U.S.C. §103(a) as being unpatentable over the combination of U.S. Patent No. 5,651,998 to Bertschi et al. and U.S. Patent No. 6,627,134 to Thomson, in further view of U.S. Patent No. 6,899,363 to Dry. Claims 5, 7, and 8 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent Application Publication No. 2004/0017023 to Schoemann et al. in view of Thomson '134. Claim 9 stands rejected under 35 U.S.C. §103(a) as being unpatentable over the combination of Schoemann '023 and Thomson '134, in further view of Dry '363.

IV. Status of Amendments

There are no amendments pending after the final rejection in this application.

V. Summary of Claimed Subject Matter

Claim 5 is the only independent claim in this application. Below, Appellant has provided a summary of the claim language mapped to the supporting disclosure of an exemplary embodiment for representation purposes only.

Claim 5 is directed to a method of forming an automotive interior trim assembly in a two-shot molding operation. (Application at paragraph 0013.) The method includes forming a substrate member 12 that defines an automotive instrument panel, an interior door trim panel, an armrest, or a console (Application at paragraph 0014) by injecting a first material during the first shot of the molding operation. (Application at paragraph 0013.) Second and third materials are then co-injected onto the substrate member 12 to form a cover member 16 on the substrate member 12 during the second shot of the molding operation. (Application at paragraph 0013.) The second material is an outer pliable layer and the third material is an inner compressible layer. (Application at paragraph 0013.) The inner compressible layer covers the outer pliable layer during the co-injecting step. (Application at paragraph 0013.)

VI. Grounds of Rejection to be Reviewed on Appeal

A. The rejection of claim 5 under 35 U.S.C. §103(a) as being unpatentable over the combination of U.S. Patent No. 5,651,998 to Bertschi et al. and U.S. Patent No. 6,627,134 to Thompson, in further view of U.S. Patent No. 6,899,363 to Dry.

B. The rejections of claims 5 and 7-9 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent Application Publication No. 2004/0017023 to Schoemann et al. in view of one or more of Thomson '134 and Dry '363.

VII. Argument

A. The Rejection of Claim 5 under 35 U.S.C. §103(a)

Claim 5 stands rejected under 35 U.S.C. §103(a) as being unpatentable over the combination of U.S. Patent No. 5,651,998 to Bertschi et al. and U.S. Patent No. 6,627,134 to Thompson, in further view of U.S. Patent No. 6,899,363 to Dry.

Claim 5 is directed to a method of forming an automotive interior trim assembly in a two-shot molding operation, the method comprising:

forming a substrate member defining one of an automotive instrument panel, an interior door trim panel, an armrest, or a console by injecting a first material during the first shot of the molding operation;

co-injecting second and third materials onto the substrate member to form a cover member on the substrate member during the second shot of the molding operation, wherein the second material is an outer pliable layer and the third material is an inner compressible layer; and

covering the inner compressible layer with the outer pliable layer during the co-injecting step.

The Examiner's rejection of claim 5 should be reversed because the cited references fail to disclose each and every element recited in claim 5. To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. In re Royka, 180 USPQ 580 (CCPA 1974). In determining non-obviousness, prior art references must be considered in their entirety, as a whole, including portions that would lead away from the claimed invention. W.L. Gore & Associates, Inc. v. Garlock, Inc., 220 USPQ 303 (Fed. Cir. 1983), cert. denied, 469 US 851 (1984).

U.S. Patent No. 5,651,998 to Bertschi et al. is directed to an injection molding system wherein a first material 490 is injected into a mold to form an outer layer. (See Bertschi '998 at col. 6, lines 47-62 and FIG. 16.) Second and third materials 444, 492 are then injected into the center of the first material 490. This is not the same as forming a substrate with the first material, then co-injecting second and third materials onto the substrate to form an outer pliable layer and an inner compressible layer, as set forth in claim 5. The Examiner admits that Bertschi '998 does not teach a second, outer pliable layer and a third inner compressible layer as set forth in claim 5. The Examiner attempts to cure these deficiencies by modifying Bertschi '998 in view of U.S. Patent No. 6,627,134 to Thomson and U.S. Patent No. 6,899,363 to Dry. Thomson '134 and Dry '363, however, are directed to apparatus and methods for making articles using only two materials. Neither of these references, therefore, discloses co-injecting second and third materials to form a cover on a substrate, and the Examiner takes a mental leap that is not supported by the references in an effort to piece together the claimed invention. The Examiner alleges that the motivation to combine these references is "to use low cost recyclable material where it is not visible." (See final Office Action at page 3.) With reference to FIG. 16 of Bertschi '998, it is seen that Bertschi '998 already discloses a molded article wherein the first material 490 completely covers the third material 492, and there is no need to further modify Bertschi '998 in view of Thomson '134 or Dry '363 as alleged by the Examiner. For at least these reasons, Appellant asserts that a *prima facie* case of obviousness has not been made and respectfully requests that the rejections of claim 5 be reversed.

B. The Rejections of Claims 5 and 7-9 under 35 U.S.C. §103(a)

Claims 5, 7 and 8 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent Application Publication No. 2004/0017023 to Schoemann et al. in view of Thomson '134. Claim 9 stands rejected under 35 U.S.C. §103(a) as being unpatentable over The combination of Schoemann '023 and Thomson '134, in further view of Dry '363. Claim 5 is the only independent claim of this rejected group. The rejection of claim 5 over Schoemann '023 in view of Thomson '134 should be reversed because Schoemann '023 fails to disclose each and every element of claim 5 and Thomson '134 fails to cure this deficiency.

The Examiner admits that Schoemann '023 does not disclose co-injecting second and third materials onto a substrate member wherein the second material is an outer pliable layer and the third material is an inner compressible layer, as set forth in claim 5. (See final Office Action at page 4.) Rather, Schoemann '023 is directed to a method of forming vehicle trim panels using two materials, wherein a movable mold element is repositioned to create an additional space within the mold for receiving a second material to be over-molded atop a first material. Thomson '134 is also directed to an apparatus for simultaneously injecting two materials to form a multi-layered article. Neither Schoemann '023 nor Thomson '134, therefore, discloses forming an automotive interior trim assembly using three materials, as set forth in claim 5. Again, the Examiner takes a mental leap that is not supported by the references in an effort to piece together the claimed invention.

Claims 7-9 each depend from impendent claim 5 and the rejections of these claims should be reversed for at least the reasons discussed above with respect to

claim 5, and because the further combination of Schoemann '023 and Thomson '134 with Dry '363 fails to cure the deficiencies discussed above. Specifically, Dry '363 is directed to a method of forming a vehicle trim component using two materials that are sequentially injected into a two-shot molding process. Dry '363 does not disclose utilizing a third material to be co-injected with a second material as set forth in claim 5. For at least these reasons, Appellant respectfully request that the rejections of claims 5 and 7-9 be reversed.

Conclusion

For the reasons stated above, Appellants respectfully urge the Board to reverse the rejections of claims 5 and 7-9.

Payment of the fees due in connection with this filing is made on the attached Electronic Fee Sheet. Any addition charges or credits necessary to complete this communication may be applied to Deposit Account No. 23-3000.

Respectfully submitted,

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VIII. CLAIMS APPENDIX

1. (WITHDRAWN) An automotive interior trim assembly, comprising:
 - a substrate member forming at least part of a structural support of the trim assembly and having at least one target area for providing a soft feel to the trim assembly; and
 - a cover member supported on said substrate member, proximate said target area, said cover member having a hardness that is relatively lower than said substrate member and comprising an inner compressible layer and an outer pliable layer encasing said inner layer.
2. (WITHDRAWN) The trim assembly of claim 1, wherein said substrate member is formed from one of thermoplastic olefin, acrylonitrile butadiene styrene, styrene maleic anhydride, and polycarbonate/ acrylonitrile butadiene styrene alloy.
3. (WITHDRAWN) The trim assembly of claim 1, wherein said inner layer of said cover member is formed from thermoplastic elastomer foam.
4. (WITHDRAWN) The trim assembly of claim 1 configured as an instrument panel for an automobile.

5. A method of forming an automotive interior trim assembly in a two-shot molding operation, the method comprising:

forming a substrate member defining one of an automotive instrument panel, an interior door trim panel, an armrest, or a console by injecting a first material during the first shot of the molding operation;

co-injecting second and third materials onto the substrate member to form a cover member on the substrate member during the second shot of the molding operation, wherein the second material is an outer pliable layer and the third material is an inner compressible layer; and

covering the inner compressible layer with the outer pliable layer during the co-injecting step.

7. The method of claim 5, wherein the first material is one of thermoplastic olefin, acrylonitrile butadiene styrene, styrene maleic anhydride, and polycarbonate/acrylonitrile butadiene styrene alloy.

8. The method of claim 5, wherein the second material is thermoplastic elastomer.

9. The method of claim 5, wherein the third material is thermoplastic elastomer foam.

IX. EVIDENCE APPENDIX

There is no evidence submitted in this Appeal.

X. RELATED PROCEEDINGS APPENDIX

1. There are no related proceedings in this Appeal.